

The Impact of Covid 19 on Households with Children. Findings from the Longitudinal Cohort Study on the Filipino Child

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A. Introduction

The onset of the Covid19 pandemic has resulted in significant adverse effects on the economy of the Philippines. The policy response to curb infections has centered on lockdowns and restrictions on movements of people out of their homes and into workplaces, and the closure of commercial establishments. The resulting reduction of economic activity has had telling effects as indicated by severe downturns in employment and production (PSA, 2021a, 2021b). The Philippines was found to perform particularly worse compared to its neighbors in the Southeast Asian region (Ducanes, 2020). At the level of households and individuals, these disruptions will translate to possible reductions in income streams, especially for breadwinners unable to continue to work or are forced to work fewer hours. Inevitably, access to goods and services or purchasing power is reduced. The World Bank provides a description of various household level effects from surveys conducted in August 2020 (World Bank, 2020a). They found significant reductions in levels of employment and heightened food insecurity among others.

For already vulnerable households, these could mean substantial new difficulties or worsening of existing ones. Ducanes (2020) estimated that adverse effects on employment were most felt by those with lower educational attainment and skill levels using simulations on national level household and labor force surveys. The World Bank reported that households belonging to the lowest income quintile had that highest proportion of households experiencing income loss compared to pre-pandemic levels with consequent higher incidences of both food insecurity and decreased food consumption as a coping mechanism (World Bank, 2020,2021). Households with children are rendered more vulnerable given that the economic downturn could impede the children's opportunities for acquiring human capital that will determine their life course trajectories. The reports cited above point to significant difficulties among households in obtaining access to health and education services.

The Longitudinal Cohort Study on the Filipino Child¹ (Cohort Study) provides an opportunity to explore the impact of the Covid19 pandemic on a nationally representative sample of households with children. The Cohort Study has conducted annual surveys to date and since the 2016 baseline survey (when index children were age 10) through its fourth wave in 2020 (at age 13) data collection was done through home visits (face-to-face interviews). The Wave 4 data collection started in January 2020 and was midway when COVID19 was declared a pandemic. Field operations had to be eventually terminated in March 2020 as nationwide lockdowns were imposed (OPS, 2021). Wave 4 was able to gather data from 3,079 of the sample households (62% of target). A phone survey was conducted in November 2020 to assess the whereabouts and conditions of the cohort during the pandemic. This brief survey managed to track 3,182 households (64% of sample). Data from these two surveys give us an essential perspective on the circumstances of these households immediately prior to the pandemic (Wave 4; January-March 2020) and in the first few months of the pandemic (Wave 4a or Phone Survey, November 2020) when these households as well as the country were still adjusting to the havoc created by COVID19. The Cohort Study is also well placed to provide information on the effects on the index children themselves. This note presents relevant data from these and prior waves of the Cohort Study to contribute to the discourse on the pandemic's effects on especially vulnerable households with a view to indicating relevant policy action. We look at two particular socio-economic indicators: declines in household income and the difficulty to meet expenses. We then examined how any of these are associated with child-specific and other household vulnerabilities. Policy implications of these results are also discussed.

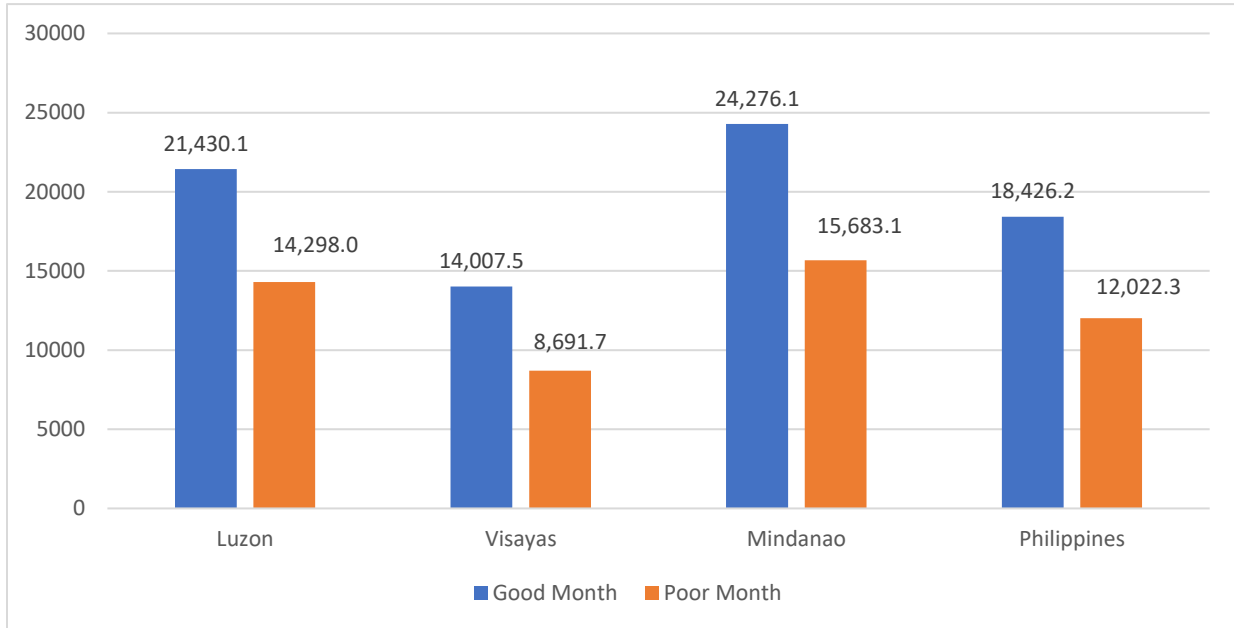
B. Cohort Study Results

Household Incomes

The Cohort Study asked for monthly household incomes for good and poor months in all waves. Figure 1 shows the results for Wave 4 stratified across Luzon, Visayas and Mindanao, the study's sampling domains (USC-OPS,2021). Given the national annual per capita threshold of Php 25,813 based on the 2018 Family Income and Expenditure Survey (PSA, 2020a) and the mean household size of 6 persons per household for the Cohort Study, the monthly poverty income threshold would be approximately Php 12,900. Looking at the income values in Figure 1, we see that for Wave 4, shortly before the pandemic started, going through a poor month would push the national and Visayas mean monthly income below this threshold.

¹ The Longitudinal Cohort Study on the Filipino Child is a collaborative undertaking of government agencies, development partners and demographic researchers aimed to examine how the lives of Filipinos are changed in the course of the implementation of the Sustainable Development Goals (SDG) agenda (OPS,2018). The research strategy is to prospectively observe a nationally representative sample of 4,952 Filipinos from age 10 through 24 (2016-2030) through annual surveys that collect data on significant life course milestones such as puberty, school completion, labor force entry/exit, sexual activity initiation and other reproductive health events, and marriage. Data collected at each survey round are analyzed to determine the interplay of child, household and community attributes that explain various health and socio-demographic outcomes among the cohort. Study findings will inform policy decisions, program design and service delivery efforts.

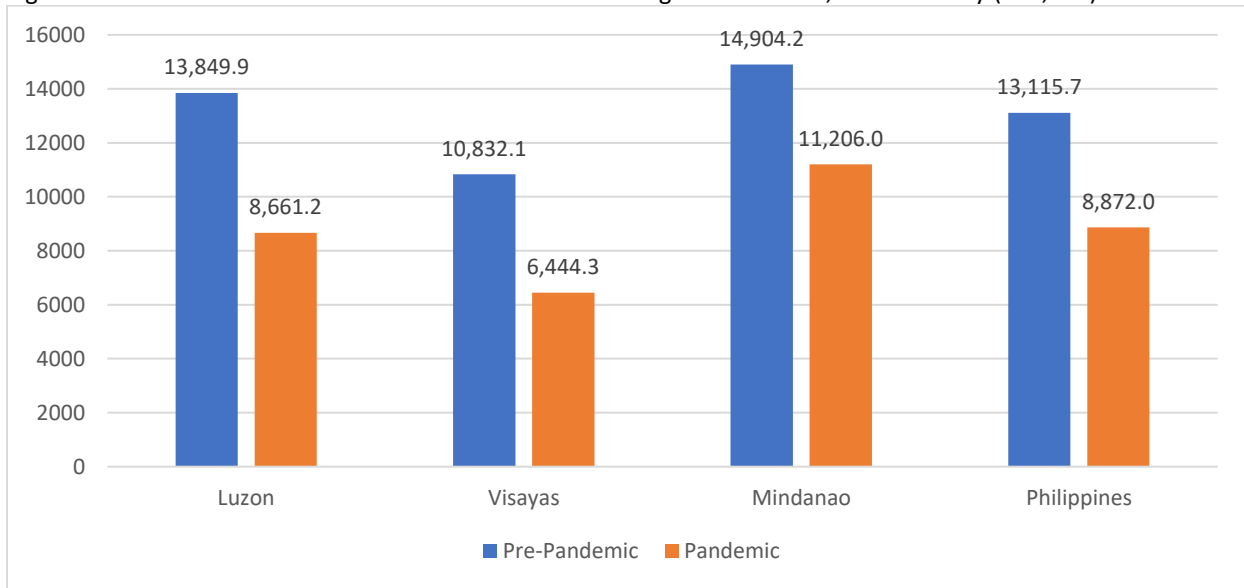
Figure1. Mean Monthly Household Incomes in Good and Poor Months by Domain, Wave 4, n=3,076 (pre-pandemic)



*Good and poor month mean household incomes in the Visayas significantly different from Mindanao and Luzon $p < 0.01$

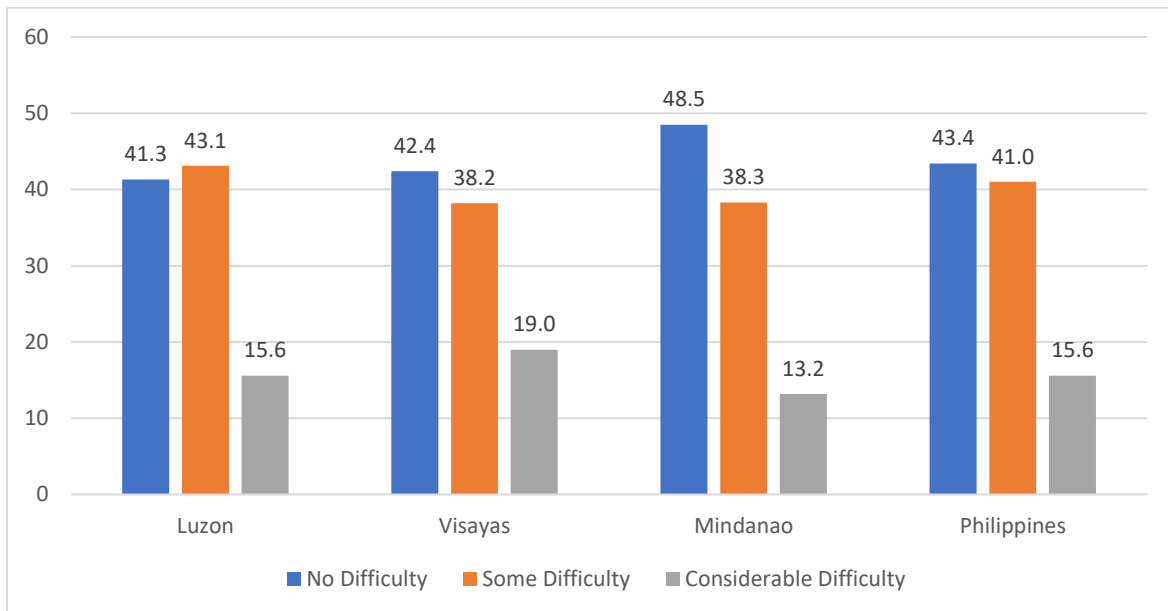
The pandemic affected household incomes quite significantly as shown in Figure 2. For the Phone Survey, households were asked to compare mean monthly incomes before the pandemic (before March 2020) and during the pandemic (since March 2020). We note that mean pre-pandemic income values reported in the phone survey more closely approached the Wave 4 values for poor rather than good months. In all three domains, mean household incomes decreased between pre- and during pandemic, bringing values below the poverty threshold, with the situation particularly dire for sample households in the Visayas. While on a percentage basis, Visayas and Luzon households suffered the same mean reduction of 36%, the lower base for Visayas households meant that income levels of these households fell even lower below the poverty threshold. The mean reduction for all households was approximately 29%. This reduction brought the average sample household below the poverty threshold.

Figure 2. Mean Household Incomes Pre-Pandemic and During the Pandemic, Phone Survey (n=2,239)



Given these reductions in household income, some households are seen to experience difficulties with meeting household expenses during the pandemic. Figures 3 and 4 present the breakdown of Wave 4 and Phone Survey results by domain. Prior to the pandemic, 57% of households nationwide expressed some to considerable difficulty meeting expenses with 16% expressing considerable difficulty. Households in the Visayas had the highest proportion of households expressing considerable difficulty while households in Luzon had the highest proportion expressing some difficulty in meeting expenses (43%). Households in Mindanao had the highest proportion of households expressing no difficulty (49%).

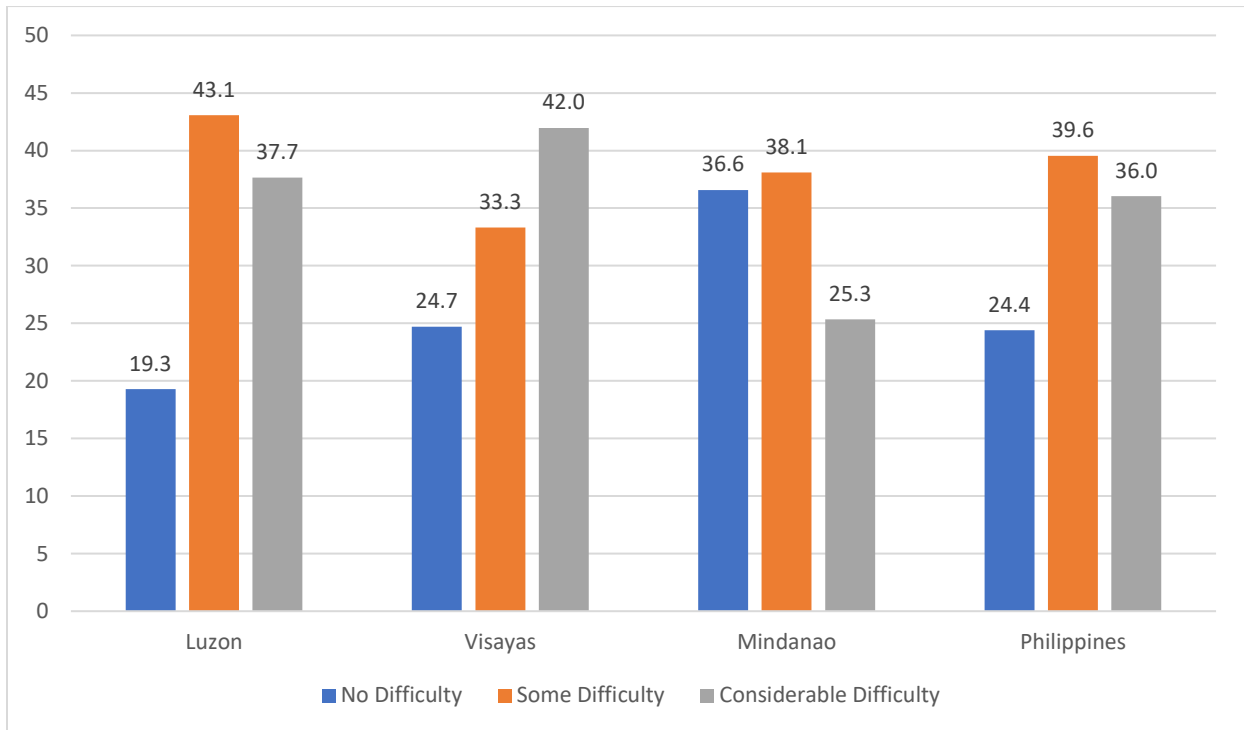
Figure 3. Proportions of Households by Difficulty of Meeting Expenses by Domain before the pandemic (Wave 4 Survey)



Proportions significantly different $p < 0.05$

During the pandemic, the proportion of households expressing considerable difficulty in meeting expenses more than doubled to 36% of households nationwide. The proportion of households having no difficulty nearly halved to 24% from 43% prior to the pandemic. Households in the Visayas had the highest proportion expressing considerable difficulty at 42%. Households in Luzon, however, had the highest proportion expressing difficulty, whether some or considerable, at 81% of all households.

Figure 4. Proportions of Households by Difficulty of Meeting Expenses by Domain during the pandemic (Phone Survey)



Proportions significantly different $p < 0.01$

Changes in Socio-Economic Status and Households and Children with Vulnerabilities

These changes in socio-economic status may disproportionately affect households with existing vulnerabilities or drive households into vulnerable positions. This section details how vulnerabilities are associated with these changes.

1. **Urban vs Rural Households.** Poverty incidence is higher among rural households based on the 2018 Family Income and Expenditure Survey (PSA, 2020b). However, as the pandemic epicenters have been in urban areas (DOH, 2021), the effect on urban households is expected to be larger. This is true for changes in income. The mean percentage reduction in income for households in the Phone Survey, based on recorded residence during Wave 4, was higher in urban households (35%) than in rural households (31%).

The proportion of households having some or considerable difficulty meeting expenses, however, was not significantly different between urban or rural households with approximately 75% of households in both categories expressing some or considerable difficulty.

2. **Marginalized households.** Households may have already been suffering from other vulnerabilities prior to the pandemic. Table 1 shows the proportions of households who live in geographically isolated and disadvantaged communities (GIDA), identify as indigenous peoples (IP), suffered from flooding, have experienced armed conflict, and identified as having index children with disabilities across Waves 1-4 of the Cohort Study.

Table 1. Proportions of Households by Marginalized Status and Wave

Categories	Wave 1 n=4,951	Wave 2 n=4,734	Wave 3 n=4,649	Wave 4 n=3,069
GIDA	4.59	5.65	5.43	5.68
Indigenous People	36.43	35.19	32.93	31.23
Flooding	40.94	31.71	37.12	27.34
Armed Conflict	5.52	1.37	2.67	0.61
Children with Disability	1.4	2.3	2.7 ^a	3.38

^aValues in Wave 3 may not be comparable with previous waves given expanded version of the morbidity section in Wave 3

There were no significant differences in mean percentage reductions in household income declared in the Phone Survey among marginalized households versus non-marginalized households. This was also the case when these households were compared to non-marginalized households in terms of difficulties in meeting expenses. These indicate that economic changes were felt across the board. However, as marginalized households were already suffering from these vulnerabilities, across the board negative shocks would likely affect these households even more.

3. **Household Food Security.** Declines in purchasing power may have combined with supply disruptions that raise prices and limit physical availability of food during the height of the lockdowns. The restrictions on individual mobility may have also limited access to food. The Cohort Study implemented a Food Insecurity Experience Scale (FIES) to measure the extent of household food insecurity across all waves of gathering. Table 2 shows the proportions of households by level of food insecurity across the waves of data gathering.

Table 2. Proportions of Households by Wave and Category of Food Insecurity

Category of Food Insecurity	Wave 1 (2016) N=4,950	Wave 2 (2018) N=4,734	Wave 3 (2019) N=4,662	Wave 4 (Jan-Mar 2020) N=3,076	Wave4A (Phone Survey; Nov 2020) N=3,172
None	15.03	22.71	23.85	26.17	20.27
Mild	18.16	22.31	25.38	29.10	29.00
Moderate	32.63	28.69	28.72	24.93	32.85
Severe	34.18	26.30	22.05	19.80	17.88

As can be seen from the above table, the proportion of food secure households had been increasing up to Wave 4 with concurrent decreases in the more severe forms of food insecurity. However at

the time of the Phone Survey, we once again see a rise in food insecurity particularly among those classified as moderately food insecure with the rate reverting to what was observed in 2016.

Households classified as food secure during the pandemic had the lowest percentage reduction in pre-pandemic and pandemic income at 24% while mild and moderately food insecure households manifested 33% and 35% reductions in income respectively. As would be expected, severely food insecure households had the highest proportional reduction of 40% in pre-pandemic and pandemic incomes. A little more than half of the severely food insecure reported having considerable difficulty in meeting expenses as seen in Table 3.

Table 3. Proportions of Households by Difficulty of Meeting Expenses and Category of Food Insecurity, Phone Survey

Household Difficulty in Meeting Expenses	Category of Food Insecurity			
	None	Mild	Moderate	Severe
No Difficulty with money left over	5.81	3.06	2.39	0.75
Just enough to meet expenses	33.93	19.31	12.47	14.27
Some difficulty	40.11	38.08	45.25	33.71
Considerable difficulty	20.14	39.55	39.9	51.27

Significantly different proportions $p < 0.05$

4. Stunted and Wasted Index Children. Household conditions, whether long standing or current, that may have contributed to children’s poor nutrition are likely to have worsened during the pandemic, compromising whatever opportunities there are for nutritional recovery. Approximately 22% of index children were stunted as of Wave 4 (at age 13). In the case of reduced household incomes, there is no significant difference in the percentage reductions between households with stunted children and those without. However, as shown in Table 4, there was a much larger proportion of households with stunted children having considerable difficulty meeting expenses during the pandemic indicating an economic vulnerability that is chronic.

Table 4. Proportions of Households by Difficulty of Meeting Expenses by Index Child Being Stunted, Wave 4 and Phone Survey

Household Difficulty in Meeting Expenses (as of Phone Survey)	Index Child Stunting (as of Wave4)	
	Normal	Stunted
No Difficulty with money left over	3.67	2.20
Just enough to meet expenses	22.15	17.47
Some difficulty	40.86	34.34
Considerable difficulty	33.32	45.99

Significantly different proportions $p < 0.05$

In Wave 4, 78% of the index children were of normal weight, 12% were classified as wasted and 10% were overweight. There were no significant differences in percentage reductions in income nor with difficulty in meeting expenses across these categories. Similar to what we observed among the marginalized households, the pandemic’s impact appear to have been felt by all households, regardless of acute nutritional risk status.

5. Exposure to Physical Violence. Households that experienced heightened stresses due to losses in income and enforced physical proximity due to lockdowns may see index children being increasingly

exposed to violence (Fore, 2021; Campbell, 2020; Kippenberg, 2020; Pereda and Diaz-Faes, 2020). We defined exposure to violence based on the index children's reports of being hurt by parents, adults other than parents, friends or peers, and witnessing violence at home in Wave 4 (pre-pandemic). Significant differences in percentage reductions in pre-pandemic vs pandemic income were found only among those who experienced physical violence from peers. Such children appeared to also belong to households that experienced lower reductions in pandemic income (28%) vs those who did not experience this at all during Wave 4 (34%). This is a curious result that warrants further investigation.

We also did not find any significant differences in the proportions of index children experiencing violence and the level of difficulty of households in meeting expenses.

- 6. Propensity for High Risk Sexual Behavior.** In Wave 4 we identified behaviors of index children that could potentially lead to high risk sexual behavior. Among these are sexual activity experience, watching pornography and chatting with strangers over the internet. We found no significant association between the incidence of these behaviors and the changes in socio-economic status indicators.

7. Child Labor

The Cohort Study previously looked at child work at ages 10 and 11 (Largo et al., 2020). In this previous note, it was shown that poverty, as indicated by membership in the 4Ps Conditional Cash Transfer Program of the government, was significantly associated with early work exposure (starting at ages 10 or 11). Income declines that cause poverty could drive more children to work. However, as restrictions were imposed on children going out of their households, any new employment would be in family enterprises in household premises.

As of Wave 4, 84% of children had never worked across all 4 waves, 15% had worked in at least one wave, while 2% had worked across all 4 waves. We found no significant differences in the mean reductions in income nor with difficulties in meeting expenses across these child labor categories.

8. School performance

School participation rates have been high for the past 4 waves (97-98% of index children were reported to be enrolled). For the Phone Survey, the school participation rate remained at 97%. There were no significant differences in pre-pandemic and pandemic income declines among households with children reporting schooling difficulties such as repeating a grade, missing classes or having low grades. However, we found that households with index children having low grades were more likely to report having some or considerable difficulty meeting expenses (79%) than among households with children having good grades (74%).

Similarly, households who reported any level of difficulty meeting expenses during the pandemic appeared to have index children with lower scores (or poorer performance) in cognitive tests measured in Wave 2 (age 11): the Raven's Standard Progressive Matrices (RSPM; which measures cognitive ability) and the School Scale based on the Child Behavior Checklist (CBCL) (see Table 5).

Table 5. Mean RSPM and CBCL Scores by Household Difficulty in Meeting Expenses in Phone Survey

Household Difficulty in Meeting Expenses	RSPM	CBCL School Scale Score
No Difficulty with money left over	33.54	5.21
Just enough to meet expenses	31.20	5.07
Some difficulty	29.96	4.99
Considerable difficulty	28.23	4.95

Household Coping Mechanisms

As 75% of households report some or considerable difficulty in meeting expenses, measures to close the gap between reduced incomes and expenses would be needed. Table 6 shows the top ways households used to do this for Wave 4 and the Phone Survey.

Table 6. Top Methods of Coping with Expenses Wave 4 and Phone Survey

Coping mechanisms	Proportion of Households	
	Wave 4 (n =1,690)	Phone Survey (n=2,295)
Loan from Friends/Family	50.01	47.73
Taking on Extra Jobs	45.30	49.59
Loan from Banks, Cooperatives/Other Institutions	39.33	
Purchase Goods on Credit	43.96	
Ask Money from Friends and Family	31.52	
Cook Own Food		41.43
Modify Food Consumption		35.57
Limit Food Consumption		35.27

We see that households have changed their top coping strategies during the pandemic. While taking on extra work and borrowing from family and friends still take the top two spots, obtaining credit or assistance from family and friends gave way to modifications of food preparation and consumption indicating an inability to access these priorly accessed methods. This could indicate substantial reductions in the supply of credit from these sources and the inability of family and friends to extend assistance as usual.

C. Policy Implications

The lockdowns have led to reductions of socio-economic status of affected households. The average household fell below the poverty line but the Visayas appeared to be the most affected even as it already had the lowest reported monthly household incomes prior to the pandemic. Visayan households also had the highest proportion of households expressing considerable difficulty in meeting

expenses during the pandemic. If prioritization of aid to households has to be done, a geographical basis based on domain would have to defer to Visayan households.

Urban households, especially, in the epicenters of the pandemic, have suffered greater rates of reduction in income and would advisedly be prioritized as well for public or private aid.

Marginalized households were not shown to be differently affected compared to non-marginalized ones. However, as these households already suffer from disadvantages, the same proportionate reductions in socio-economic status would have a greater impact on these households.

The pandemic has reversed the recent trend in reduced household food insecurity. The most food insecure households had the highest percentage reductions in monthly household income and half of these households expressed considerable difficulty in meeting expenses. Targeting these households for intervention would be appropriate. Where public responses are temporarily inadequate or chronically so, allowing private sector participation in safe and well thought ways would be advisable. The flourishing of community pantries and similar private sector efforts are laudable in this sense but may benefit from a clearer policy view on their operations in the context of a pandemic. Given that home food preparation and food intake adjustments appear to be among the ways of coping with reduced purchasing power in the pandemic, these households could benefit from interventions that teach strategic meal planning and promote backyard gardening.

The targeting of extremely poor households is greatly facilitated by existing databases explicitly set up for this purpose such as those for the 4Ps beneficiaries. The policy gap would exist for those whose socio-economic status would put them beyond the coverage of these databases but would also be affected significantly by economic downturns and hence need aid as well. The controversies involving the delays and misallocations of aid for these households indicate remedying this information gap as the pandemic persists. The ongoing efforts to register all Filipinos in the Philippine Information System is a step in the right direction. It is suggested that some form of means testing be then incorporated to cover the above gaps and channel aid to those who may most need them. The Cohort Study may be able to help in devising such measures such as the wealth index used in the study.

Educational difficulties among index children in the form of low grades appear to be associated with household difficulties in meeting expenses to reasonably include expenses for education. This is also worrisome as the index children in need of most help given their low educational capabilities appeared to belong in households with some or considerable difficulty making ends meet. Targeting these children for interventions would be possible in the school setting given the high school participation rate. Such interventions would be hampered by the blended learning setup being followed currently and would necessitate new modes of interventions.

The widespread reductions in socio-economic status also appeared to have affected household coping strategies as indicated by the lower reliance on obtaining aid outside the household and greater reliance on modification of household food consumption. This would indicate that formal credit mechanisms are withholding credit and family and friends are also reluctant or unable to help as generously as before. Where affected breadwinners are foreseen to benefit from a recovered economy, ensuring the availability of credit till then would be appropriate. Moves by the Bangko Sentral to require or encourage formal lending institutions to extend leniency are cases in point. However, as a large proportion of Filipino households remain unbanked (BSP, 2020), access to formal savings and credit would be also low. Remedying this carries on an added imperative for both distribution of aid and credit.

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